Dear FCC,

I have read the petitioners' document, and I disagree with it in whole. I call into question, the technical merit of their complaint, on the grounds that they purport to reduce bandwidth by requiring the user to insert a high-pass filter between the microphone and the transmitter.

I state that I am not a proponent of this so-called "hi-fi SSB".

Many Amateur Radio Operators make use of, in the course of their public service and their hobby, surplus military equipment as well as older commercial and consumer equipment.

Such equipment is sometimes inherently wider in bandwidth than the newer and more expensive equipment which in use by others. (It is often of far better quality as well, but that is another topic and I will not address it herein.)

I address the matter of surplus / older SSB equipment:

Such equipment is often not readily or easily re-engineered to reduce its bandwidth. The filters which follow the mixing stages in such SSB equipment are not on frequencies for which narrow band replacements are available.

I cite as an example, the military GRC-106 tranceiver. It is an extremely rugged unit designed for use under severe conditions, and is well suited for emergency work.

The radio is designed to survive EMP. The I.F. Filter is 4KHz wide at -40dB. Even if the user were to insert an external filter between the handset and the radio, there would be no guarantee that the bandwidth would be 100% limited to 2.8KHz due to the intensive analog audio processing performed by the unit.

I chose this example because I know of two places where it is used for emergency service as well as the hobby. I use one in the course of my duty in the Texas State Guard. A friend of mine uses one in his duty with RACES.

This is only one model of equipment. There are thousands of equipments in use today that cannot reasonably be expected to meet a requirement for a 2.8KHz bandwidth, and are not economically modifiable to do so.

To expect the owners of this equipment to stop using it and to force upon them, the burden of purchasing more equipment, simply so that they may continue to contribute to the Amateur Radio Service and other important services, is unreasonable.

I address the matter of AM equipment:

AM is a time honored mode, just as is CW. AM is used primarily by engineering hobbyists, who use this mode for

the 'hobby' part of their Amateur service.

AM is used almost exclusively on certain frequencies and at certain times which are well known to those in the Community, and by gentlemans' agrement, this arrangement has always been more than satisfactory.

AM gear, especially that which employs high level modulation and vacuum tubes, is an important part of the hobby, and its use is steeped in history.

The generally accepted practice is to limit AM bandwidth to about 6KHz. This is done not by statute, but by the couteous operator.

Some AM stations have a very good audio path and do emit a small amount of energy which is more than 2.4 KHz removed from the carrier frequency, but the amount of energy present at the frequencies above 2.4 KHz is hardly an issue unless the station is experiencing a malfunction.

There is more interference caused by improper modulation techniques and improper adjustments made to poorly-designed SSB linear amplifiers, than has ever been caused by an AM transmitter happening to have an audio path frequency response extending past 2.4KHz.

In my 30 years of listening, I have done a great deal of monitoring of AM Amateur stations, and I have found that the clarity of the transmission is greatly improved when the signal is 6 or 7 KHz wide. The tiny amount of audio at frequencies outside 5.6 KHz does make a real difference in the quality.

Limiting the bandwidth to 5.6KHz will result in a muffled quality of sound, and degrade the time-honored AM hobby.

More importantly and to the fact, section 97.307(a) of the Commissions rules requiring that the bandwidth be limited to no more than that required for the information rate, is met by AM transmitters operating with a 6KHz bandwidth. In some cases, such as with a higher pitched voice which some people have, a wider bandwidth is necessary to clearly trasmit the intelligence.

Although my opinion as to intelligibility may be considered to be somewhat subjective, my opinion as to the bandwidths is strictly objective.

I routinely use a spectrum analyzer connected to the I.F. output of a high quality communications receiver when I engage in such SWL.

I measure the bandwidth. I also use a high fidelity amplifier and speaker to listen to the received signal.

Most of the AM community uses transmitting equipment which

is all-tube. It uses no other technologies. To expect the AM community to adopt a practice which could, ultimately, in order to try to keep some level of intelligibility, require the insertion of audio DSP or other 'abominations' into an otherwise simple and elegant system, is unreasonable.

Conclusion:

I urge the FCC to impose no statutory limits on the bandwidth of SSB and AM signals.

I am especially vehement about AM.

It is improper to allow the opinions of two complainants to dictate to the rest of us, how we shall operate our equipment, and indeed, that we may no longer operate some of our equipment because of its inability to perform in compliance to their own personal wishes.

The amateur community has long policed itself. There is no reason why it would fail to continue to do so now.

If the FCC feels that it is necessary to introduce yet another rule, then I, under duress and with great reservation, would suggest a compromise of 4KHz for SSB and 8KHz for AM.

Please do not destroy or cause significant damage to the military radio / old radio part of our service and hobby by imposing unreasonable bandwidth restrictions.

sincerely,

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